

WHAT IS CLAIMED IS:

1. A method for identifying an agent useful for treating neuropsychiatric disorders comprising:
 - (a) administering an agent to an animal model having a inherently reduced prepulse inhibition (PPI),
 - (b) subjecting the animal model to a startle stimulus, and
 - (c) observing the magnitude of a PPI in the animal model, wherein a change in magnitude of the PPI compared to a control animal is indicative of an agent that is useful for treating neuropsychiatric disorders.
2. The method of claim 1, wherein the animal model is a Brattleboro Rat model or a Brown Norway Rat model.
3. The method of claim 1, wherein the agent is selected from the group consisting of a polypeptide, a peptide, a small molecule, a peptidomimetic, and a polynucleotide.
4. The method of claim 1, wherein the agent is administered by a route selected from the group consisting of parenterally, topically, subcutaneously and transmucosally.
5. The method of claim 1, wherein the startle stimulus is a physical stimulus selected from the group consisting of an auditory stimulus, a visual stimulus, and a nociceptive stimulus.
6. The method of claim 1, wherein the neuropsychiatric disorder is selected from the group consisting of Schizophrenia, schizoaffective disorder, bipolar disorder, Huntington's disorder, Tourette disorder, Obsessive-Compulsive Disorder, major depression, anxiety and autism.

7. A method for screening a test psychotropic agent for treating a neuropsychiatric disorder comprising:

(a) administering to an animal a test psychotropic agent; and

(b) measuring prepulse inhibition in a startle reflex response chamber, wherein an increased prepulse inhibition level indicates a strong clinical potential as a psychotropic drug.

8. The method of claim 7, wherein the animal is a Brown Norway Rat or a Brattleboro Rat.

9. The method of claim 7, wherein the neuropsychiatric disorder is schizophrenia.

10. The method of claim 7, wherein the neuropsychiatric disorder is selected from the group consisting of psychotic depression, postpartum depression, affective disorder, depression, anxiety, schizoaffective disorder, schizophreniform disorder, delusional disorder, brief psychotic disorder, shared psychotic disorder, borderline personality disorder, manic-depressive disorder, obsessive-compulsive disorder, Huntington's Disease, Tourette's syndrome, bipolar disorder, autism and tic disorders.

11. An animal model for obtaining preclinical predictive information concerning effectiveness of a treatment for neuropsychiatric disorders, comprising:

(a) administering to an animal a test psychotropic agent; and

(b) measuring a prepulse inhibition in a startle reflex response chamber, wherein an increased prepulse inhibition level indicates a strong clinical potential as a psychotropic drug.

12. The animal model of claim 11, wherein the animal is a Brown Norway Rat or a Brattleboro Rat.

13. The animal model of claim 11, wherein the neuropsychiatric disorder is schizophrenia.

14. The animal model of claim 11, wherein the neuropsychiatric disorder is selected from the group consisting of psychotic depression, postpartum depression, affective disorder, schizoaffective disorder, schizophreniform disorder, delusional disorder, brief psychotic disorder, shared psychotic disorder, borderline personality disorder, manic-depressive disorder, obsessive-compulsive disorder, Huntington's Disease, Tourette's syndrome, bipolar disorder, autism, and tic disorders.

15. A method of modulating sensorimotor gating in a subject comprising administering to a subject an agent selected from the group consisting of a neurotensin (NT), an NT analog, an NT agonist, a neurotensin mimetic and a combination thereof, in an amount effective to increase prepulse inhibition thereby modulating sensorimotor gating.

16. A method of improving symptoms in a subject comprising administering to a subject an agent selected from the group consisting of a neurotensin (NT), an NT analog, an NT agonist, a neurotensin mimetic and a combination thereof, as monotherapy or in combination with other psychotropic drugs, in an amount effective to increase prepulse inhibition thereby modulating sensorimotor gating.

17. The method of either claim 15 or 16 wherein the agent is selected from the group consisting of neurotensin (from about

residue x to about residue 13 of SEQ ID NO:1) wherein x is any number less than 11, or any modified version of neurotensin or a neurotensin fragment thereof selected from the group consisting of (Boc-Lys⁹)-neurotenin(9-13)-methyl ester, (Dab⁹)-neurotensin(8-13), (Dab⁹)-neurotensin(9-13), (Lys⁹, Trp¹¹, Glu¹²)-neurotensin(8-13), PD149163, NT1, NT2, NT64D, NT64L, NT65L, NT66D, NT66L, NT67L, NT69L, NT69L', NT71, NT72, NT73, NT74, NT75, NT76, and NT77; and a compound selected from the group consisting of levocabastine, SR48692, and SR142948.

18. The method of either claim 15 or 16 wherein the agent is administered by a route selected from the group consisting of parenterally, topically, subcutaneously, subdermally, and transmucosally.

19. The method of either claim 15 or 16, wherein the NT agonist is PD149163.

20. The method of either claim 15 or 16, wherein the NT agonist is NT69L.

21. The method of either claim 15 or 16, wherein the subject has a neuropsychiatric disorder.

22. The method of either claim 15 or 16 wherein the subject has a disorder associated with sensorimotor gating abnormalities.

23. The method of claim 21, wherein the neuropsychiatric disorder is selected from the group consisting of schizophrenia, post-traumatic stress disorder, depression, postpartum depression, affective disorder, anxiety, schizoaffective disorder, schizophreniform disorder,

delusional disorder, brief psychotic disorder, shared psychotic disorder, borderline personality disorder, manic-depressive disorder, obsessive-compulsive disorder, autism, pervasive developmental disorder Huntington's Disease, Tourette's syndrome, bipolar disorder, and tic disorders.

24. A method of inhibiting serotonin-2A and/or alpha-1 receptor mediated neural function comprising administering to a subject an effective amount of a neurotensin (NT) agonist.

25. The method of claim 24, wherein the NT agonist is selected from the group consisting of neurotensin, any fragment thereof including neurotensin from about residue x to about residue 13 of SEQ ID NO:1) wherein x is any number less than 11, or any modified version of neurotensin or a neurotensin fragment thereof selected from the group consisting of (Boc-Lys⁹)-neurotensin(9-13)-methyl ester, (Dab⁹)-neurotensin(8-13), (Dab⁹)-neurotensin(9-13), (Lys⁹, Trp¹¹, Glu¹²)-neurotensin(8-13), PD149163, NT1, NT2, NT64D, NT64L, NT65L, NT66D, NT66L, NT67L, NT69L, NT69L', NT71, NT72, NT73, NT74, NT75, NT76, and NT77; and a compound selected from the group consisting of levocabastine, SR48692, and SR142948.

26. The method of claim 24, wherein the NT agonist is administered by a route selected from the group consisting of parenterally, subcutaneously, subdermally, topically, and transmucosally.

27. The method of claim 24, wherein the NT agonist is PD149163.

28. The method of claim 24, wherein the NT agonist is NT69L.

29. The method of claim 24, wherein the subject has a neuropsychiatric disorder.

30. The method of claim 29, wherein the neuropsychiatric disorder is selected from the group consisting of schizophrenia, post-traumatic stress disorder, depression, postpartum depression, affective disorder, anxiety, schizoaffective disorder, schizophreniform disorder, delusional disorder, brief psychotic disorder, shared psychotic disorder, borderline personality disorder, manic-depressive disorder, obsessive-compulsive disorder, autism, pervasive developmental disorder Huntington's Disease, Tourette's syndrome, bipolar disorder, and tic disorders.

31. A method of improving cognitive function and/or memory attention in a subject comprising administering to a subject an agent selected from the group consisting of a neurotensin (NT), a neurotensin fragment, an NT analog, an NT agonist, and a combination thereof, in an amount effect to improve cognitive function and/or memory attention compared to a control subject.

32. A method for treating a subject having a neuropsychiatric disorder comprising administering to the subject a pharmaceutically effective dose of an NT agonist or a pharmaceutically acceptable salt thereof.

33. The method of claim 32, wherein the pharmaceutically effective dose is between about 50 and about 300 mg per day, with unit doses in the range of about 10 to about 100 mg.

34. The method of claim 32, wherein the administering is oral, parental, subcutaneous, intranasal, rectal or topical.